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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/686,240	10/15/2003	Christopher J. C. Burges	MS1-1674US	7597

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EXAMINER	
THOMAS, JASON M	
ART UNIT	PAPER NUMBER
2423	

NOTIFICATION DATE	DELIVERY MODE
08/21/2009	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

lhptoms@leehayes.com

Office Action Summary	Application No.	Applicant(s)	
	10/686,240	BURGES ET AL.	
	Examiner	Art Unit	
	Jason Thomas	2423	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on *19 May 2009*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-3,7-13,15,16 and 21-27* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-3,7-13,15,16 and 21-27* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments, see pp. 11-19, filed May 19, 2009, with respect to the rejection(s) of claim(s) 1-3, 7-13, 15, 16 and 21-27 under 35 U.S.C. Section 103(a) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Foote et al., U.S. Pat. No. 6,774,917 B1 and Snook, U.S. Pat. No. 6,400,378 B1.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Foote et al., U.S. Pat. No. 6,774,917 B1 (hereinafter Foote), in view of Cobbley et al., U.S. Pat. No. 5,818,510 (hereinafter Cobbley), Snook, U.S. Pat. No. 6,400,378 B1 (hereinafter Snook) and Maybury et al., U.S. Pat. No. 6,961,654 B1 (hereinafter Maybury).

Regarding claims 1 and 21: Foote discloses a system including an executable means for interactive similarity searching, retrieval and browsing (see

[col. 6, ll. 28-67] for a system which executes similarity searching) comprising: receiving a request for information regarding a media object (see [col. 2, ll. 25-42], [col. 20, ll. 18-28] for submitting a query); inferring the information from repeat instances of media objects occurring within one or more media streams (see [col. 20, ll. 18-60], [col. 21, ll. 9-22] for identifying similar instances of media properties using both image frame analysis and annotations, which read on objects, where similarity is based on a segment similarity score and said annotations, and where the ability to search multiple videos reads on inferring from one or more media streams); and returning the information (see [figs. 32, 33 and 34] for returning the search results) but while Foote teaches using annotations within the media as an additional means to assist in searching for repeat instances (see [col. 20, ll. 29-43] where annotation are linked to the video segments) and also determining different versions of repeating instances (see [col. 3, ll. 18-36], [col. 16, ll. 7-16] for multiple segments which are similar), Foote does not clearly define how annotations are used or teach presenting the media objects by comparing temporal lengths of the plural instances of the search results such that the different versions of the media object are selected from the group comprising: a longest version of the media object; a number of longer versions of the media object; a shortest version of the media object; and a number of shorter versions of the media object; nor does Foote teach wherein the inferring further comprises determining a number of related media objects, wherein: (i) the related media objects are determined based on temporal proximities of media objects relative to the media object associated with the request,

and (ii) the related media objects have a higher frequency of repeat instances relative to one another.

Cobbley teaches a system which also segments media where the media also include keywords, which read on annotations, which are used to describe the media segment to assist in indexing and searching (see [cols. 3-4, ll. 65-12], [col. 4, ll. 43-50], [cols. 5-6, ll. 56-3], [col.8, ll. 4-16]). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the way in which text information is used by relying also on pre-embedded text information describing the video stream, as taught by Cobbley in order to provide assistance in identifying repeat instances of the media objects.

Snook teaches a method of presenting media clips to a user by duration such that the clips can be displayed by duration from shortest to longest and in ascending or descending order (see [col. 4, ll. 36-56], [col. 6, ll. 13-21] which reads on determining a longest or shortest version of the media object). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the way in which the search results are presented to the user by allowing the media segments (clips) to be sorted by duration, as taught by Snook, in order to provide the user with a simplified and effective way of reviewing the search results.

Snook does not teach wherein the inferring further comprises determining a number of related media objects, wherein: (i) the related media objects are determined based on temporal proximities of media objects relative to the media

object associated with the request, and (ii) the related media objects have a higher frequency of repeat instances relative to one another.

Maybury teaches determining related media objects based on temporal proximities associated with media object in question and based on media objects having a higher frequency relative to another (see [figs. 3, 4, 9], [col. 4, ll. 14-25], [cols. 6, ll. 53-2], [col. 17, ll. 45-60] for tracing the temporal proximity of occurrence of the associated news story segment and also analyzing the frequency of occurrence or words, images, or sounds an indicative of the most common or most important content). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the searching means by enabling additional searching methodologies such as basing the search on a temporal proximity or object frequency as taught by Maybury in order to provide additional means of specifying the search interest of the requesting user.

Regarding claim 13: Foote discloses a system including an executable means for interactive similarity searching, retrieval and browsing (see [col. 6, ll. 28-67] for a system which executes similarity searching) comprising: receiving a request for information regarding a media object (see [col. 2, ll. 25-42], [col. 20, ll. 18-28] for submitting a query); inferring the information from repeat instances of media objects occurring within one or more media streams (see [col. 20, ll. 18-60], [col. 21, ll. 9-22] for identifying similar instances of media properties using both image frame analysis and annotations, which read on objects, where similarity is based on a segment similarity score and said annotations, and where the ability to search multiple videos

reads on inferring from one or more media streams); and returning the information (see [figs. 32, 33 and 34] for returning the search results) but while Foote teaches using annotations within the media as an additional means to assist in searching for repeat instances (see [col. 20, ll. 29-43] where annotation are linked to the video segments) and also determining different versions of repeating instances (see [col. 3, ll. 18-36], [col. 16, ll. 7-16] for multiple segments which are similar), Foote does not clearly define how annotations are used or teach presenting the media objects by comparing temporal lengths of the plural instances of the search results such that the different versions of the media object are selected from the group comprising: a longest version of the media object; a number of longer versions of the media object; a shortest version of the media object; and a number of shorter versions of the media object; nor does Foote teach wherein the inferring further comprises determining a number of related media objects, wherein: (i) the related media objects are determined based on temporal proximities of media objects relative to the media object associated with the request, and (ii) the related media objects have a higher frequency of repeat instances relative to one another.

Cobbley teaches a system which also segments media where the media also include keywords, which read on annotations, which are used to describe the media segment to assist in indexing and searching (see [cols. 3-4, ll. 65-12], [col. 4, ll. 43-50], [cols. 5-6, ll. 56-3], [col.8, ll. 4-16]). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the way in which text information is used by relying also on pre-embedded text information

describing the video stream, as taught by Cobbley in order to provide assistance in identifying repeat instances of the media objects.

Snook teaches a method of presenting media clips to a user by duration such that the clips can be displayed by duration from shortest to longest and in ascending or descending order (see [col. 4, ll. 36-56], [col. 6, ll. 13-21] which reads on determining a longest or shortest version of the media object). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the way in which the search results are presented to the user by allowing the media segments (clips) to be sorted by duration, as taught by Snook, in order to provide the user with a simplified and effective way of reviewing the search results.

Snook does not teach wherein the inferring further comprises determining a number of related media objects, wherein: (i) the related media objects are determined based on temporal proximities of media objects relative to the media object associated with the request, and (ii) the related media objects have a higher frequency of repeat instances relative to one another.

Maybury teaches determining related media objects based on temporal proximities associated with media object in question and based on media objects having a higher frequency relative to another (see [figs. 3, 4, 9], [col. 4, ll. 14-25], [cols. 6-7, ll. 53-2], [col. 17, ll. 45-60] for tracing the temporal proximity of occurrence of the associated news story segment and also analyzing the frequency of occurrence or words, images, or sounds an indicative of the most common or most

important content). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the searching means by enabling additional searching methodologies such as basing the search on a temporal proximity or object frequency as taught by Maybury in order to provide additional means of specifying the search interest of the requesting user.

While these references do not explicitly teach a first, second or third request for media it is the combined teachings of the aforementioned prior art teach interfaces which are used conducting a search (see Maybury [figs. 32, 33], [col. 20, ll. 18-28]; see also Maybury [figs. 14-19, 21, 22] for an interface which provides a means for indicating a type of search a user should choose to input; see also [fig. 14, 18], [cols. 6-7, ll. 53-2] for the ability to identify the most common, which reads on a most popular media object), in addition, the ability present, which reads on rendering, the searched repeated and related media segments is also taught in the aforementioned prior art (see Foote [col. 3, 47-60]; see also Maybury [col. 5, ll. 10-20] for interfaces which allow the search results to be presented to the user).

Regarding claims 2 and 22: The combined teachings of the aforementioned prior art, teach wherein the inferring comprises searching a database for the information, the database including media objects and records of repeat instances of the media objects (see Foote [col. 20, ll. 18-43]; see also Cobbley [cols. 6-7, ll. 53-3], [col. 8, ll. 45-64]).

Regarding claims 3 and 23: The combined teachings of the aforementioned prior art, teach wherein the inferring comprises: monitoring the one or more media

streams; identifying the repeat instances; and storing records of the repeat instances in a database (see Foote [col. 20, ll. 18-42] where a database contains one or more media streams; see also Maybury [fig. 15]; for monitoring one or more media streams; Cobbley [cols. 6-7, ll. 53-3], [col. 8, ll. 45-64] identifying repeat instances and storing records of the repeat instances).

Regarding claims 7 and 25: The combined teachings of the aforementioned prior art, teach wherein the inferring comprises matching a key word from the request with metadata extracted from a media object (see Maybury [figs. 15, 21, 22] for a keyword search).

Regarding claims 8 and 26: The combined teachings of the aforementioned prior art, teach wherein the inferring comprises matching date and time information from the request with date and time information of a media object stored in a database (see Maybury [fig. 15] for matching date and time).

Regarding claims 9 and 27: The combined teachings of the aforementioned prior art, teach wherein the inferring comprises limiting returned media objects based on constraints contained within the request (see Maybury [fig. 15] where criteria such as type of search and data and time limit the returned media objects).

Regarding claim 10: The combined teachings of the aforementioned prior art, teach wherein the inferring comprises identifying temporal endpoints of each repeat instance of the media object (see Foote [cols. 2-3, ll. 53-10], [col. 3, ll. 47-60] where defining a segment is identifying a start and endpoint).

Regarding claim 11: The combined teachings of the aforementioned prior art, teach wherein the identifying is based on an identifier included in the request, the identifier selected from the group comprising: a fingerprint of the media object; and a time stamp and channel code associated with the media object (see Foote [col. 20, ll. 18-43] where an actual video segment, which reads on a fingerprint, is used for a search; see also Maybury [fig. 15] where time information, which reads on a time stamp, and new source, which reads on a channel code, is used for a search).

Regarding claim 12: The combined teachings of the aforementioned prior art, teach a server computer comprising the processor-readable medium as recited in claim 1 (see Maybury [col. 5, ll. 32-45] for running a search system using a server).

Regarding claim 15: The combined teachings of the aforementioned prior art, teach comprising further processor-executable instructions configured for rendering a media stream that includes the media object (see Foote [col. 3, 47-60]; see also Maybury [col. 5, ll. 10-20] for interfaces which allow the search results to be presented to the user, which reads on rendering).

Regarding claim 16: The combined teachings of the aforementioned prior art, teach a client computer comprising the processor-readable medium as recited in claim 13 (see Maybury [col. 5, ll. 32-45] for using a client computer for said system).

Regarding claim 24: The combined teachings of the aforementioned prior art, teach wherein the inferring comprises determining a number of related media

objects, the related media objects occurring within a close temporal proximity of the media object with a higher frequency of repeat instances relative to one another (see [figs. 3, 4, 9], [col. 4, ll. 14-25], [cols. 6, ll. 53-2], [col. 17, ll. 45-60] for tracing the temporal proximity of occurrence of the associated news story segment and also analyzing the frequency of occurrence or words, images, or sounds an indicative of the most common or most important content).

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Bolle et al., U.S. Pat. No. 6,675,174 – Exact or similar matching of media sequences such as short of long versions of commercials, etc.
- Ahmad et al., U.S. Pat. No. 6,263,507 – Identifying and displaying related news stories based on embedded data.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason Thomas whose telephone number is (571) 270-5080. The examiner can normally be reached on Mon. - Thurs., 8:00 a.m. - 5:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Koenig can be reached on (571) 272-7296. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

J. Thomas

/Andrew Y Koenig/
Supervisory Patent Examiner, Art Unit 2423